

DISTRIBUTION NOTES ON CULICIDAE (MOSQUITOES).

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During the summer of 1929 I had the opportunity of identifying some 2,300 specimens of Culicidae (except the Anophelini) from the museum of the Illinois State Natural History Survey. As the data on mosquitoes from Illinois is very meagre it seems wise to record some of the more interesting distribution notes. Furthermore, a few interesting species from various parts of the world were included and notes on some of these are also appended.

CHAOBORINAE.

Chaoborus albatus Johnson. 4 males from Clear Lake, Ind., July 17, 1914. The only other American records are by Johnson—Mt. Tom and Brookline, Mass.

Chaoborus punctipennis Say. Males and females, Grand Junction, Mich., July 15, 1914, and Cedar Lake, Ind., July 17, 1914. Females, Peoria, Ill., June 15 and Dubois, April 24, 1914.

CULICINAE.

Culex apicalis Adams. There seem to be very few definite records of this common mosquito from Illinois. Males and females from White Heath, 1906; Carbondale, May 30 and July 3, 1919; Lake Villa, August 9, 1906; Vienna, August 16, 1905; Herrin, September 27, 1920, and Algonquin, May, June and August are in the collection.

Culex inhibitor Dyar and Knab. Dyar records this species as extending from the Mississippi Valley and the southern states south through Mexico and Central America to South America. He gives only one record from Illinois (Herrin). The museum collection contains males and females from Havana, August and September; Herrin, August 27 and July 20, 1925; Pike, June 25, 1906, and Algonquin, September 10, 1914. Very little seems to be known regarding the habits of this species. Coad took four females at Havana at night (August 6 and 15, 1911) while in the act of biting him.

Culex pipiens L. The distribution of this common house mosquito can only be definitely determined from an examination of

the males and the larvae. (It is very difficult to separate the larva of this species from that of *Culex quinquefasciatus*). Males are recorded from Herrin, August; Carbondale, October, and Mt. Carmel, June. The Museum has also a long series of this species collected in a school in Seoul, Korea (October and November, 1918).

Culex quinquefasciatus Say (*fatigans* Wied.). Males of this species are recorded from Havana, July, September and October; Carbondale, May 30, 1919, and Forest Glen, October 2, 1915. There is a wide range of variation in the hypopygia of this and the preceding species. In a region where the two species occur there appears to be all sorts of gradations and the possibility of interbreeding is indicated.

Culex salinarius Coq., *Culex territans* Walker, and *Culex tarsalis* Coq. are widely distributed in Illinois.

Aedes campestris Dyar and Knab. The most eastern record of this species is Minnesota. Four females were taken by Davis along a railroad at Riverdale, Ill., on April 9, 1910.

Aedes cataphylla Dyar. This species, according to Dyar, is restricted to the Rocky Mountains, from Colorado north to the Yukon. In the collection there is one male taken at Mt. Carmel, Ill., on June 30, 1906. This would indicate a much wider range for the species than that given by Dyar.

Aedes excrucians Walker. There appears to be no records of this species from Illinois. I can record it from Ravinia, June 8, 1926; Glencoe, June 9, 1926; Urbana, October 29, 1926, and Algonquin, May and June.

Aedes fitchii Felt and Young. New records are Urbana, May 12, 1887 (one male); Algonquin, June (3 males).

Aedes flavescens Müller. The most eastern record for this species in the United States is Minnesota. In this collection there are 4 males and 3 females from Algonquin, Ill. (May and June).

Aedes hirsuteron Theobald. We have no records of this species from Illinois. The following are new: Urbana, May and June, 1906; Bishop, June 23, 1906; Prophetstown, July 19, 1927; East St. Louis, July 18, 1906; Ravinia, July 9, 1926; Homer, May 14, 1906; Pike, May 26, 1906; Golconda, April 18, 1914; Pulaski, April 21, 1909, and Havana, August and October, 1912.

Aedes sollicitans Walker. Dyar has always recorded this species from the coastal areas from Maine to Florida and the Gulf

Coast. I have a long series collected at Syracuse, N. Y. In the Illinois material there are 2 males and 3 females collected at Herrin, Ill., by Chandler on May 21, 1925. This species certainly occurs inland breeding in salt areas.

Aedes stimulans Walker. New records: Glencoe, June 9, 1926; Ravinia, June 8, 1926; Bishop, June 23, 1906; Muncie, June 13, 1906; Algonquin, May, 1905; River Forest, July 11, 1913; Northmoor Woods, June 9, 1926. (All records are from Illinois.)

Aedes triseriatus Say. This species is widespread throughout the state, being represented by 123 females. An interesting observation by Frison is worth recording. On June 30, 1927, while collecting at a light he captured 27 females in the act of biting.

Aedes vexans Meig. This is undoubtedly the most abundant and widespread species in the Illinois area. Out of 2,300 specimens 900 proved to be this species.

Aedes canadensis Theo. is quite widely distributed in Illinois. I can record it from Urbana, May and June; Mascoutah, July 17, 1906; Antioch, August 1, 1924; Danville, July 7, 1906; Golconda, April 18, 1914; Scott Field, May 10, 1918; Carbondale, May 4, 1918, and Thebes.

Aedes dorsalis Meig. is represented by only three females from Oak Park, May 22, 1909, and September 6, 1906.

Aedes trivittatus Coq. One female from Urbana, Ill., September 29, 1929. Mr. J. Lyell Clarke records this species as rather abundant and annoying around Ravinia Park, about twenty miles north of Chicago along the shores of Lake Michigan.

Aedes nearcticus Dyar. This species is recorded from the Arctic coast of the Canadian North West Territory, the Rocky Mountains south to Montana (Glacier National Park). In the Illinois collection are four perfect males taken at Cranbrook, B. C., on May 5, 1921. I have also one male taken at Alamosa, Colorado, by S. C. Bishop on June 17, 1930.

Aedes japonicus Theo. In the Museum collection there are 6 females and 5 males of this species collected at Seoul, Korea, on October 18 and November 4, 1915. Edwards (Bull. Ent. Res., 7, p. 212, 1917) described *Aedes koreicus* from a male and a female collected in Korea. He states that this species is closely allied to *A. japonicus* Theo., differing only in that the last two hind tarsal joints are ringed with white. In the material before me there are specimens with all the hind tarsal joints showing white rings (the last one very faint), and the last joint without any white. The

markings of the other legs agree with Edwards' description of *A. koreicus*. As basal white bands on the tarsi are rather variable, even in reared specimens of the same species, it would seem inadvisable to maintain *A. koreicus* as a distinct species or even as a variety.

Theobaldia impatiens Walker. In this collection there are several records of interest: 1 female from Lake Delavan, Wis., collected on a hotel porch on April 7, 1892; 2 females from Minoccus, Wis., August, 1929; 1 male from Carbondale, Ill., October 3, 1918; one female from Arrowhead Lake, B. C., Canada.

Theobaldia inornata Williston. This species appears to be common and widespread in Illinois. The following records may be noted: Muncie, June 8, 1916; Havana, April 3 and October 2; Algonquin, April, May, June and October 27, 1903; Urbana, September 29, 1928; Makanda, April 16, 1927; Carbondale, September 1, 1918.

Psorophora columbiae Dyar and Knab. Males and females are recorded from Grand Tower, July, 1906; Oak Park, July 28, 1900, and Carbondale, October 15, 1918.

Psorophora ciliata Fabr. Only a single female taken by Frison at light at Homer Park on July 6, 1927, is in the collection.

Psorophora posticata Wied. This species can be recorded from White Heath, April 7, 1915; Mascoutah, July 17, 1906; East St. Louis, July 18, 1906, and Havana, September 18, 1895. (All records from Illinois.)

Orthopodomyia signifer Coq. One male and one female collected at Urbana, Ill., on September 2 and July 31, 1916.

Mansonia (Taeniorhynchus) perturbans Walker. This species may be recorded from Roxana, June 20, 1927; Danville, July 7, 1906, and Algonquin, June and July. These are the first known records from Illinois. There were 27 specimens in the collection.

Uranotaenia sapphirina O. S. One female from Herrin, Ill., August 26, 1920.